RULE 15.2 INSTRUCTIONS

Before entering TB Form B limits, the Engineer must attempt to contact the Employee In Charge by radio to avoid delay. When granting verbal permission, use the following:

- **"Foreman (name) using Track Bulletin NO ___, (specifying line number when necessary) between MP ___ and MP ___."**

After communication with the train has been established, the EIC will use the following format to grant a train permission to proceed through the Form B limits:

- **"(Train ID) may pass the red flag (or red light) at MP ___ (without stopping) and proceed at (one of the following), (specifying track when necessary):"**
  - "Maximum Authorized Speed"
  - "Restricted Speed"
  - A speed specified by the EIC.

An additional speed may be given to restrict a train's movement through a portion of the limits, by adding the following:

- **"Do not exceed ___ MPH between/at MP ___ and MP ___** (or other location)**".**

  Unless otherwise restricted, the train must proceed at Restricted Speed and not exceed the speed specified.

To require a train to stop at a designated location within the limits, add the following:

- **"Stop at MP ___ (or other location) until additional instructions are received."**

When men or equipment foul adjacent track(s), add the following:

- **Men or equipment fouling (specify track).**

SPEED TABLE

Time per mile			Time per mile			Time per mile		
MIN	SEC	MPH	MIN	SEC	MPH	MIN	SEC	MPH
60	:00	1	4	:00	15	2	:04	29
30	:00	2	3	:45	16	2	:00	30
20	:00	3	3	:32	17	1	:56	31
15	:00	4	3	:20	18	1	:53	32
12	:00	5	3	:09	19	1	:49	33
10	:00	6	3	:00	20	1	:46	34
8	:34	7	2	:51	21	1	:43	35
7	:30	8	2	:44	22	1	:40	36
6	:40	9	2	:37	23	1	:37	37
6	:00	10	2	:30	24	1	:35	38
5	:27	11	2	:24	25	1	:32	39
5	:00	12	2	:18	26	1	:30	40
4	:37	13	2	:13	27	1	:20	45
4	:17	14	2	:09	28	1	:12	50

GRAND CANYON RAILWAY

TIMETABLE NO

14

IN EFFECT
AUGUST 30, 2019
AT 00:01

FOR THE INFORMATION OF EMPLOYEES ONLY

GRAND CANYON RAILWAY

Est. 1901

Xanterra TRAVEL COLLECTION

ROBERT I. BAKER
GENERAL MANAGER TRAIN OPERATIONS

KEN H. STEPHENSON
TRAINMASTER, RSC.

ERIC HADDER
CHIEF MECHANICAL OFFICER

GUSTAVO A. RICO
ROADMASTER

RODRICK WILSON
ASSISTANT TRAINMASTER

KARL V. ZICOPOULOS
CAR & PAINT SHOP MANAGER

PETE DIAZ
ROAD FOREMAN OF ENGINES

GERARD FREDETTE
CHIEF DISPATCHER

TELEPHONE DIRECTORY

EMERGENCY CONTACTS

EMERGENCIES (All Fire, Medical, Police)	**911**
AIR-Guardian AMBULANCE, Flagstaff	928-773-7876
AMBULANCE, Lifeline, Williams	635-3039
BNSF Emergency	800-832-5452
CLINIC, Grand Canyon	928-638-2551
CLINIC, Williams	635-4441
FIRE DEPARTMENT, Williams	635-4421
FIRE, Forest Service Dispatcher	635-2601
GC NPS Dispatcher (Emergency)	928-638-7911
GC NPS Dispatcher (non-emergency)	928-638-7805
MEDICAL CENTER, Flagstaff	779-3366
National Response Center	800-424-0201
Poison Control Center	800-222-1222
POLICE, Flagstaff	774-1414
POLICE, State DPS	773-3600
POLICE, Williams	635-4461
SHERIFF, Coconino County, Flagstaff	774-4523
SHERIFF, Coconino County, Williams	635-4487
SECURITY, Xanterra Williams	699-3313
SECURITY, Xanterra South Rim	638-2631
Transportation Security Administration	866-289-9673

GRAND CANYON RAILWAY

Car Yard Office	635-4010 ext. 1018
Dispatcher	635-9369
Flagstaff Office	773-1976
Grand Canyon Depot	773-1976 ext. 1050
Grand Canyon Depot (Long Dist.)	928-638-2471
Grand Canyon Railway Hotel	635-4010
Mechanical Shop	773-1976 ext. 3200
Reservations	800-843-8724
Ticket Office, Williams	635-4253
Trainmaster Offices	635-5359 & 773-1976 ext. 1028

OTHER

ADOT Road Conditions	888-411-7623
TIME - Naval Observatory	719-567-6742

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ETERNAL VIGILANCE
IS THE PRICE OF SAFETY
& SECURITY,
KEEP YOUR EYES AND EARS
OPEN!

SOUTHWARD #			Ruling Grade Ascending	TIMETABLE NO 14 August 30, 2019 Stations	MP	Ruling Grade Ascending	NORTHWARD #		
7	5	3					2	4	6
Depart GC							Arrive GC		
16:30	15:30	14:30	0.0	**Grand Canyon** TY 1.0	63.7	2.0	10:45	11:45	12:45
16:36	15:36	14:36	0.0	**GCYL** 5.5	**62.7**	2.5	10:30	11:30	12:30
16:50	15:50	14:50	2.2	**Coconino** 5.2	57.2	0.0	10:14	11:14	12:14
17:04	16:04	15:04	0.0	**Imbleau** S 2.0	52.0	3.0	10:00	11:00	12:00
.....	.....	.....	0.0	Hopi 5.2	50.0	3.0	.....	.....	.....
17:18	16:18	15:18	0.0	**Anita** 1.0	44.8	1.5	9:46	10:46	11:46
.....	.....	.....	1.5	Woodin 6.1	43.8	1.2	.....	.....	.....
17:28	16:28	15:28	1.5	**Willaha** S 8.7	37.7	2.5	9:36	10:36	11:36
17:43	16:43	15:43	2.2	**Valle** 8.5	29.0	1.2	9:21	10:21	11:21
17:56	16:56	15:56	2.0	**Quivero** A 3.6	20.5	2.0	9:08	10:08	11:08
.....	.....	.....	2.0	North Pole 2.1	16.9	1.3	.....	.....	.....
.....	.....	.....	3.0	Bly 5.8	14.8	2.0	.....	.....	.....
18:14	17:14	16:14	2.2	**Red Lake** S 2.5	9.0	1.5	8:50	9:50	10:50
.....	.....	.....	3.0	Pitt 5.2	6.5	2.6	.....	.....	.....
18:28	17:28	16:28	0.0	**WMSYL** 1.3	**1.3**	1.3	8:37	9:37	10:37
18:45	17:45	16:45		**Williams** BRTY	0.0		8:30	9:30	10:30
Arrive WMS							Depart WMS		

Explanation of Characters:

A - Auxiliary Track
B - General Orders, Circulars, Notices
R - Radio Base Station
S - Siding
T - Turning Facility
Y - Yard Limits

MP 0.0 to MP 1 is a distance of 8,160 feet.

Yard Limits: Williams - MP 0.0 to MP 1.3
Grand Canyon - MP 62.7 to end of Track 4

Track Warrant Control in effect outside of Yard Limits.

Timetable trains shall not depart originating station before time shown. **All** trains report station times in **bold** to Dispatcher. Passenger trains wye and back into GC Depot unless otherwise instructed. Any locomotive pulling maximum tonnage unassisted should head into GC Depot. Passenger trains arriving in Williams should head into Depot unless otherwise instructed.

SPEED REGULATIONS AND RESTRICTIONS

MAIN TRACK

	MPH
Maximum Speed	40
7th Street Derail (YL) to GCB (MP 0.05)	10
Except: Northward moves after head end over GCB	20
Southward moves crossing GCB between the Whistle board (MP 0.2) and GCB	10
MP 0.05 (GCB) to MP 1.3 (YL)	20
Except: Northward moves after head end outside YL	30
MP 1.3 to MP 4.2	30
MP 4.2 to MP 11.6	35
MP 11.6 to MP 11.9	25
MP 34.8 to MP 36.7	25
MP 46.2 to MP 53.6	30
MP 53.6 to MP 57.8	20
MP 57.8 to MP 62.7	25
MP 62.7 (YL) to End of Track	10
Except: Southward Main Track moves after head end over Kennel Road	25

OTHER TRACK RESTRICTIONS

Williams Auxiliary & Wye Tracks	10
Williams Mechanical Shop Tracks 1, 2, 3	5
GC Auxiliary & Wye Tracks	10
Siding and Spur Tracks	10

BRIDGE CAPACITY & LOAD CONTROL

Prior to each time equipment exceeding the nominal weight or configuration restriction on a bridge is operated; conditions shall be determined by the Railroad Bridge Engineer, after analysis of the stresses resulting from the proposed loads.

EQUIPMENT SPEED RESTRICTIONS

Lite locomotive(s) and trains averaging 90 TPOB or more southward between MP 48 and MP 46.2	25
Trains with one or more steam locomotive(s) in the consist exceeding 110 TPOB descending grade between:	
MP 3 and MP 3.3 [El Paso XING] (NB)	10
MP 48 and MP 46.2 (SB)	10

Note: Check Circulars and Notices daily for other restrictions.

TONS PER OPERATIVE BRAKE RESTRICTION (TPOB)

Trains utilizing Dynamic Brakes are relieved from the TPOB Restriction provided train speed does not exceed the posted speed limit with dynamic braking and a maximum 18 psi brake pipe reduction. If movement exceeds the posted speed limit, trains must adhere to the TPOB Restriction. The Conductor must confer with the Engineer regarding the TPOB Restriction prior to entering TPOB limits.

DYNAMIC BRAKE LIMITATION RESTRICTION [AB&TH 103.2.1]

Reduce Dynamic Brake Retarding Force to not exceed fifty (50) percent of maximum when slack is bunched operating through the following locations:

Northbound:
MP 11.6 & MP 11.9 - Left Hand Curve
MP 53.9 & MP 54.1 - Left Hand Curve

Southbound:
MP 61.8 & MP 61.7 - Right Hand Curve
MP 48.0 & MP 47.8 - Left Hand Curve

The Dynamic Brake Limitation Restriction is a head-end restriction and only applies while the locomotive(s) are within the above limits.

SPECIAL INSTRUCTIONS AND MODIFICATIONS TO GENERAL CODE OF OPERATING RULES

General Code of Operating Rules, Seventh Edition, dated April 1, 2015 in effect on GCR.

1.1 Safety
Rule violations or irregularities in the movement of trains, engines or MW equipment must be reported to your direct Supervisor and Trainmaster's office.

1.2.5 Reporting
All personal injuries must be reported immediately to Security and Risk Management. The GCR Injury-Illness-Incident Report and Xanterra Accident Report must be submitted to the Risk Manager for all personal injuries.

1.3 Rules
MOW employees shall be trained and qualified on the GCR Roadway Worker On-Track & Bridge Worker Safety Program prior to fouling any track. Train Dispatchers must be familiar with this program and it may be reviewed at the following locations: Trainmaster Office, Dispatcher Office, Car Yard Office and Mechanical Shop.

1.3.2 & 1.3.3 General Orders, Operating Circulars and Operations Notices
Are posted at the Car Yard Office, Dispatcher Office and Mechanical Shop.

1.5 Drugs and Alcohol
Illegal drug use is prohibited at any time (either off-duty or on-duty) by any individual performing or subject to Regulated Service (Hours of Service & MOW).

Employees that perform Regulated Service under the Hours of Service regulations shall be deemed to have consented to testing subject to the following:
Pre-employment Drug,
Random Drug & Alcohol,
Reasonable Suspicion Drug & Alcohol,
Reasonable Cause Drug & Alcohol, and
Post Accident Testing.

GCR Drug & Alcohol Program Administrator is the Risk Manager. Questions regarding FRA Control of Alcohol and Drug Use should be directed to the Designated Employee Representative. (GM of Train Ops & Dir. of HR.)

GCR Medical Review Officer (MRO) is:

Dr. Paul Teynor (employer's drug Mgmt.)
505 20th Street North Ste #1200
Birmingham, AL 35203
1-205-326-3100

GCR Employee Assistance Program (EAP) and Substance Abuse Professional (SAP) is:

The Guidance Center

220 N. Grant St.

Williams, AZ 86046

928-635-4272

1.6.1 Motor Vehicle Driving Records
Locomotive Engineers & Conductors must report any conviction(s) to the Trainmaster, Assistant Trainmaster, or DSLE no later than the end of the first business day immediately following the day that the employee received notice of the conviction and prior to operating a locomotive or working as Conductor.

1.8 Appearance
The use of any form of tobacco by employees on duty while in the presence of passengers or customers is prohibited. Smoking is prohibited on, in, or about locomotives, cars, stations and railroad property where danger of fire exists or as designated by proper authority.

1.11.1 Napping Is permitted only for train crews during GC layover provided the first four bullets under "Restrictions are as follows:" are adhered to.
In addition:

- Railroad Operating Employees must not nap in view of the general public or on the locomotive.
- All requirements under **(GCOR and T.T.) Rule 7.6 Securing Cars and Engines** must be met prior to an ROE taking a nap.
- Any naps must take place during non-paid (lunch) time.

1.17 Hours of Service
Employees subject to Hours of Service must notify the Dispatcher for rule compliance.

1.28 Fire All fires must be reported to the Dispatcher.

Fire Danger Ratings:

US Forest Service	MP 1.3 and MP 4.5
	MP 45.4 and MP 59.9
GC National Park	MP 59.9 and GC

When Fire Danger Rating (FDR) is ***D*** or ***Red Flag***, fusees will only be used when absolutely necessary. If used, the Dispatcher must immediately be informed of the time and location. Train and MW crews will be notified of ***D*** or ***Red Flag*** FDR by the Dispatcher when on-duty. Call the Forest Service at 928-635-2601 for FDR when the Dispatcher is off -duty. If current FDR is not available, crews will be governed by the last known FDR. FDR notifications issued on a TW remain in effect throughout the crew's tour of duty.

1.40 Reporting Engine Defects
Report engine defects to the Dispatcher when on-duty.

1.47 A. Conductor Responsibilities

Conductors must insure the train is properly equipped with the necessary marker(s), signals, equipment and tools. Bulky packages obstructing aisles or seats and posing a hazard are not allowed. Any unidentified luggage is not allowed on train. The Conductor or Brakeman must walk through occupied passenger trains every 45 minutes to assure passenger safety, security and comfort.

Individuals while on duty as a Conductor must have their Conductor Certificate in their possession. A Conductor must notify the Dispatcher, Assistant Trainmaster, or Trainmaster for a replacement Conductor Certificate if their certificate has been lost, stolen, or mutilated.

1.47 C. All Crewmembers' Responsibilities

Crewmembers going in-between equipment not requiring Blue Signal Protection, must receive In-Between Protection acknowledgement from the Engineer prior to fouling equipment.

In-Between Protection requires the "3 points of protection" Engineer is to center the reverser, open the Generator Field Switch, and apply the independent brake before providing In -Between Protection acknowledgement. (Steam Locomotives require centering reverser, opening house valves & cylinder cocks and pinning throttle.) Prior to resuming movement, the Engineer must confirm with the Crewmember that requested In-Between Protection that In-Between Protection is no longer required.

Prior to moving cars hooked to ground power, the Engineer shall confer with the Crewmember conducting the move to ensure HEP cables have been properly disconnected.

1.48 Time

Watches must display hours in Arabic numbers (1, 2, etc.).

For time comparison, designated time sources are the Naval Observatory, and Standard Clocks. Atomic Clocks may be used for time comparison when displaying the 'Wave OK' or an equivalent icon.

Standard Clocks will be labeled with a sign that reads "Standard Clock." Employees responsible for setting standard clocks will make sure the clocks show the correct time.

Standard Clock Location	Responsibility
Dispatcher Office	Dispatcher
Mechanical Shop	Foreman
Car Yard Office	Foreman
MOW Yard Office	Foreman

Continental time in use on Grand Canyon Railway. Continental Time recorded on Mandatory Directives will be formatted with four digits and a colon separating hours and minutes.

2.7 Monitoring Radio Transmissions

Railroad radio assigned frequencies:

Channel	Use	Rx AAR	Tx AAR
1	DISP (South)	21	97
2	DISP (North)	16	97
3	Switching	25	25
4	MOW	48	48
5	Special Trains	63	63
6	Talk Around (South)	21	21
7	Talk Around (North)	16	16
8	Weather 1	—	—
9	Weather 2	—	—
10	South Rim Fire/Security	—	—
11	WMS Facilities/Maint.	—	—
12	BNSF Disp 10	55	55
13	BNSF Disp 13	84	84

TERMSDXO

T - Trains
E - Engines
R - Railroad cars
M - Men & equipment fouling track
S - Stop signal
D - Derail or switch lined improperly
X - Crossings at grade
O - Other crew movements

Remember "TERMSDXO" when shoving cars/switching.

5.3.1 Hand Signals

When a lit fusee or lantern (flashlight) is necessary while using hand signals **5.3.1 (2) Proceed & (3) Back Up**, the use of 'outlaw' (Come-To-Me or Go-Away-From-Me) hand signals are not allowed.

Description of Signal	Indication
4. Slight horizontal movement at arm's length at right angle to track:	Reduce speed
5. Swung horizontally above the head:	Apply air brake
6. Held at arm's length above the head.:	Release air brake

5.4 Flags for Temporary Track Conditions

Distances are changed as follows:

'4 miles' - is changed to - '2 miles'

'2 miles' - is changed to - '1 mile'

5.4.3 B. Restriction Is Not Specified in Writing and
5.4.4 Authorized Protection By Yellow or Yellow-Red Flag

Not in use on GCR.

5.5 Permanent Speed Signs

Permanent Speed Restriction Warning Signs are displayed one (1) mile in advance of speed restrictions.

5.8.2 Sounding Whistle

The following whistle signals are added:

Sound	Indication
(9) — — — —	Flagman may return from south.
(10) — — — — —	Flagman may return from north.

5.9.5 Displaying Ditch Lights

Does not apply to steam locomotives.

5.11 Engine Identifying Number

Trains will be identified by engine number, adding the direction when required. When an engine of another company is used, the company's initials will precede the number.

5.13 Blue Signal Protection of Workmen

The employee in charge is responsible for establishing Blue Signal Protection for individual(s) working under Blue Signal Protection. Individual(s) needing to work under Blue Signal Protection that is already established must communicate directly with the employee in charge before commencing and upon stopping work that requires Blue Signal Protection.

5.13 E. Protection for Emergency Repair Work on a Main Track

On diesel locomotives: the reverser must be removed and placed in charge of the employee performing work, the Generator Field switch opened, and brakes applied. On steam locomotives: throttle must be pinned, reverse lever centered, house valves and cylinder cocks opened.

5.13.1 Utility Employees

B. Requirements while working on, under, or between

A Utility Employee may only perform one or more of the following functions without GCOR 5.13 - Blue Signal Protection established:

1. Set or release hand brakes;
2. Couple or uncouple air hoses and other electrical or mechanical connections;
3. Prepare cars for coupling;
4. Set wheel blocks or wheel chains;
5. Conduct air brake tests to include cutting air brake components in or out and position retaining valves;
6. Inspect, test, install, remove, or replace a Rear End Marking Device or End of Train Device.

6.3 Main Track Authorization

GCR uses the following methods of Main Track Authorization:

- Rule 6.13 (Yard Limits)
- Rule 14.1 (Authority to Enter TWC Limits)
- Rule 15.4 (Protection When Tracks Removed From Service)
- Special Instructions or General Order

Main Track use within Yard Limits may be permitted after a Roadway Worker has established Inaccessible Track provided all movements within the Inaccessible Track will be made under the direction of the Roadway Worker In Charge.

6.3.1 Train Coordination

The sentence reading: "The employee must contact the train's engineer to request use of Train Coordination." is not in use at GCR.

The Roadway Worker In Charge establishing Working Limits with a train must communicate with the Conductor or Engineer and have a copy of the Exclusive Authority that is issued jointly to the train and the Employee In Charge.

6.5 Shoving Movements

GCR Locomotives 1105

Unless otherwise restricted, 1105 may shove a single empty flat car # GCR94287 in the direction authorized on Main Track at track speed outside of Yard Limits with the following conditions:

1. Locomotive short hood is coupled directly to the flat car,
2. The train must approach and occupy all road crossings in compliance with GCOR 6.32.1 Providing Warning Over Road Crossings,
3. Headlight and ditch lights must be displayed in the direction of travel,
4. During daylight hours and visibility exceeds 1/2 mile.

When these conditions are complied with and visibility is not impaired, the Crewmember may occupy the locomotive's cab.

6.6 Picking Up Crew Member - Not in effect on GCR.

6.19 Flag Protection

A. Flag Protection Not Required

1. & 2. Not in use on GCR.

Flag Protection is *not* required:

- Within Yard Limits
- When Track Warrant relieves a train crew from Flag Protection responsibilities, or,
- When all trains are required to move at Restricted Speed within limits specified by Track Warrant, Track Bulletin, or General Order.
- Within the "WORK BETWEEN" limits, when a train is authorized to "WORK BETWEEN" two specific points.

Before Reaching Prescribed Distance

If the Flagman hears or sees a train approaching before reaching the prescribed distance, the Flagman must immediately light a fusee and continue toward the approaching train giving stop signals.

Responsibility for Protection

A Flagman must not permit other duties to interfere with the protection of the train. The Conductor and Engineer are responsible for ensuring that any needed Flag Protection is provided for their train.

Acknowledgement of Flagging
When flagged, the Engineer must acknowledge Stop Signals promptly. Flagman must continue giving Stop Signals until the Engineer acknowledges them and reacts to them. After stopping, the Engineer must be informed why the train was flagged and act accordingly.

6.23 Emergency Stop or Severe Slack Action
Passenger trains stopped by an emergency brake application shall inspect the brakes to ensure release and make a rolling inspection of all wheels to ensure flat spots have not developed.

6.28 Movement on Other Than Main Track
Movements on Other Than Main Track are to be made at Restricted Speed.

When a Roadway Worker has established Working Limits by Inaccessible Track on Other Than Main Track, all movements will be under the direction of the Roadway Worker In Charge.

6.28.3 Cars or Equipment Left on Siding
Notify the Dispatcher when equipment is left on the Red Lake, Willaha, or Imbleau sidings, or on Quivero auxiliary track.

6.30 Receiving or Discharging Passengers
B. Responsibilities of Approaching Movements
Last sentence not in effect on GCR.

6.32.2 Automatic Warning Devices
Notify the Dispatcher immediately when Automatic Crossing protection is cut-out or cut-in. Notify the Trainmaster or Roadmaster of malfunctioning Automatic Warning Devices when the Dispatcher is off-duty.

7.1 Switching Safely and Efficiently - Last bullet not in effect on GCR.

7.7 Kicking or Dropping Cars
Not in effect at GCR.

7.7.1 Gravity Switch Moves Not in effect on GCR.

7.9 Switching Passenger or Occupied Outfit Cars
The requirement to fully charge the brake system applies to occupied passenger cars.

When switching passenger equipment within the Williams or Grand Canyon Yards, a stop within 50 feet of the coupling is waived provided movement is not exceeding two (2) MPH when coupling.

7.12 Movement Into Spur Tracks
When movement does not exceed 2 MPH, the stop 150 feet from end of track is waived.

8.2 Position of Switches
Roadway Worker(s) using derails or switches to establish Working Limits by Inaccessible Track, must secure and tag each switch or derail used to establish the Working Limits with an effective securing device.

Engineer Switch Awareness:
Engineers operating the controls of a leading locomotive making a trailing move through a rigid switch within Yard Limits, and Other Than Main Track must communicate with another Crewmember the switch position before fouling the switch.

8.3 Main Track Switches
Job Briefing
A Job Briefing must be conducted prior to operation of a Main Track Switch, whenever a switch (work) plan is changed, and when the switch is restored to normal position at completion of the work. When a switch is operated, the individual operating the switch must communicate with the Engineer the position of the switch. The Engineer must acknowledge switch information prior to movement.

Main Track Switch Operation Outside of Yard Limits

A. Whenever a Main Track Switch outside of Yard Limits is operated and the Dispatcher is on-duty, before a train crew or MW employee departs the switch location, communicate with the Dispatcher to confirm switch position and securement.

B. Whenever a Main Track Switch outside of Yard Limits is operated and the Dispatcher is off-duty, a SPAF must be completed by the Conductor or EIC prior to leaving the switch location. Completed SPAFs must be turned in to the Dispatcher Office. When the Dispatcher is off-duty, place completed SPAFs in the 'Switch Lock Box'.

C. When limits of authority are released, the Dispatcher must be notified of the position of all switches included in the limits. SPAFs must be completed prior to the limits of authority being released. When the Conductor is separated from the Engineer, the initials verbally transmitted and entered on the SPAF must identify the individual making the entry. SPAFs initiated by an EIC must indicate the individual operating the switch.

D. Track Warrant(s) left for the Dispatcher in the 'Switch Lock Box' releasing any limits of authority must either have a completed SPAF or a notation on the Track Warrant being released providing switch information. When the limits of a Track Warrant left in the 'Switch Lock Box' are released, the Dispatcher must verify switch information prior to accepting the limits being released.

8.14 Conflicting Movement Approaching Switch First paragraph, second sentence, is changed to:
'Except at a spring or variable switch, trains must not foul the main track, or signaled track, or pass beyond an insulated joint at the Clearance Point until the switch connected with the movement is properly lined'.

8.15 Switches Run Through
Notify the Dispatcher when a switch is run through. When the Dispatcher is off-duty, notify the Trainmaster or Roadmaster. No movement will be made over a run through switch until permission is given by a Roadmaster.

8.18 Variable Switches
During snow storms or ice storms, a trailing movement may be made if it is known that the switch is clear of any obstruction and will operate properly.

To avoid damage, trailing movements through variable switches not properly lined must be made at a speed not to exceed 10 mph. Once all wheels of the leading car or unit pass the switch points, speed may be increased in accordance with the rules and track speed at that location.

8.20 Derail Location and Position

Third paragraph, second sentence, referencing auxiliary tracks, is not in effect on GCR.

When any type rail equipment is left unattended on a siding or spur, derails will be left locked in the derailing position.

Temporary derails used to establish Inaccessible Track will be identified by a red or orange target displayed at the derail location.

14.3 Operating with Track Warrants

Item 2 Second and third sentences not in effect on GCR.

A. When TW requires 'NOT IN EFFECT UNTIL AFTER THE ARRIVAL OF ___ .' the limits must not be occupied until the train to be met has been identified by engine number and the rear end marker has passed the point of restriction. The train being restricted must establish verbal communication with the train being met to confirm the train's identity. The restricted train Conductor's and Engineer's Track Warrant must show in writing the train's identification, time identified and location.

B. A train required to meet another train at a siding must make the following radio transmission: 'Train (ID) is approaching (name) siding at (speed) MPH.' The radio transmission must be made not less than two (2) miles from the meet location.

C. When Special Instructions or the Train Dispatcher instructs a train crew to report passing a designated location, the time reported must be made after the rear of the train passes the last siding switch, milepost, or station sign if the station does not have a siding.

D. All trains must report times leaving or entering Yard Limits. Trains operating on TW Line 2 or 3 authority must report by the following stations: Red Lake, Quivero, Valle, Willaha, Anita, Imbleau, Coconino and other locations as instructed. Passenger trains must report departure and arrival time at GC Depot.

14.4 Occupying Same Track Warrant Limits

Item 2. All trains within overlapping limits are authorized to move in the same direction and required to provide Flag Protection behind the train as specified under GCOR 6.19 Flag Protection. The last train may be relieved of providing Flag Protection when instructed 'DO NOT FOUL LIMITS AHEAD OF (any preceding train)'.

14.5 Protecting Men or Equipment

Item 2 not in use on GCR.

14.9 Copying Track Warrants &
15.7 Copying Track Bulletins

TW(s) and TB(s) issued and copied must show the date and name of the employee who copied it or relayed it.

TW(s) and TB(s) issued to or relayed by Crewmembers or Track Foreman must be in their possession until the end of their tour of duty unless relieved. TW(s) or TB(s) may only be copied or relayed by Rules Qualified Employees.

The Train Dispatcher will not transmit a restricting Track Warrant or Track Bulletin to a train near a point where the restriction applies until the Engineer confirms that they can comply with it. When a previously granted authority is restricted by TW or TB, the Train Dispatcher must acknowledge with the Engineer that the restricted authority can be complied with.

14.10 Track Warrant in Effect Add fourth bullet:

- Location where cleared

15.2 Protection by Track Bulletin Form B

A TB Form B protecting men or machines is in effect until the Foreman releases the limits to the Dispatcher. The 'Until' column on GCR TB Form B (Rev 7-10) is not in use on GCR.

A. Instructions

The Roadway Worker In Charge may not authorize a train to enter the limits until all Roadway Workers are notified of the operation of trains and all men and machines are clear of the track or On-Track Safety is accorded by Train Approach Warning.

B. Repeat Instructions

The Engineer must repeat the instructions, and the employee giving the instructions must acknowledge them before they can be followed.

15.7 Copying Track Bulletins refer to **14.9** on previous page.

Glossary Additional authorized abbreviations:

AWS – Advance Warning Sign
BDB – Ballast Deck Bridge
FDR – Fire Danger Rating
FRA – Federal Railroad Administration
FRM – Foreman
GC - Grand Canyon
GCB – Grand Canyon Boulevard
GCR – Grand Canyon Railway
GO – General Order
NSS-North Siding Switch
ODB – Open Deck Bridge
PRS – Permanent Reduce Speed Sign
ROE – Railroad Operating Employee
RSS – Resume Speed Sign
SI - Special Instructions
SSS-South Siding Switch
TB – Track Bulletin
TW – Track Warrant
UE – Utility Employee
WMS – Williams
WS – Wye Switch
XING – Crossing

Definitions Added:

Switching Operation:
Means the classification of cars according to commodity or destination; assembling of cars for train movements, changing the position of cars for purposes of loading, unloading, or weighing; placing of locomotives and cars for repair or storage; or moving of rail equipment in connection with work service that does not constitute a train movement.

Riding Outside Of Equipment:
A crewmember is considered to be Riding Outside of Equipment when positioned on the side of moving equipment that has no open vestibule.

In accordance with 49 CFR 1580.105:
Railroads must immediately report potential threats and significant security concerns/incidents to the Department of Homeland Security, Transportation Security Operations Center (TSOC):
1-866-615-5150.

Security-Safety:
To help maintain a level of security our railroad demands Conductors and Brakemen will stay visible on the depot platforms when normal operating practices do not require them to be elsewhere.

All railcars and vehicles in Williams Yard Limits or Grand Canyon Yard Limits will have doors closed and secured, unless in immediate use. All Xanterra equipment must be secured when unattended.

SPECIAL INSTRUCTIONS FOR STATIONS

WILLIAMS

5.13 Blue Signal Protection of Workmen
Mechanical Shop Tracks 1, 2, 3 are Engine Servicing Areas as defined by GCOR 5.13 Blue Signal Protection of Workmen.

6.2 Initiating Movement
Overnight Track Bulletin Notification affecting movements within the Williams Yard will be posted at the Car Yard Office and Mechanical Shop when the Dispatcher is off-duty.

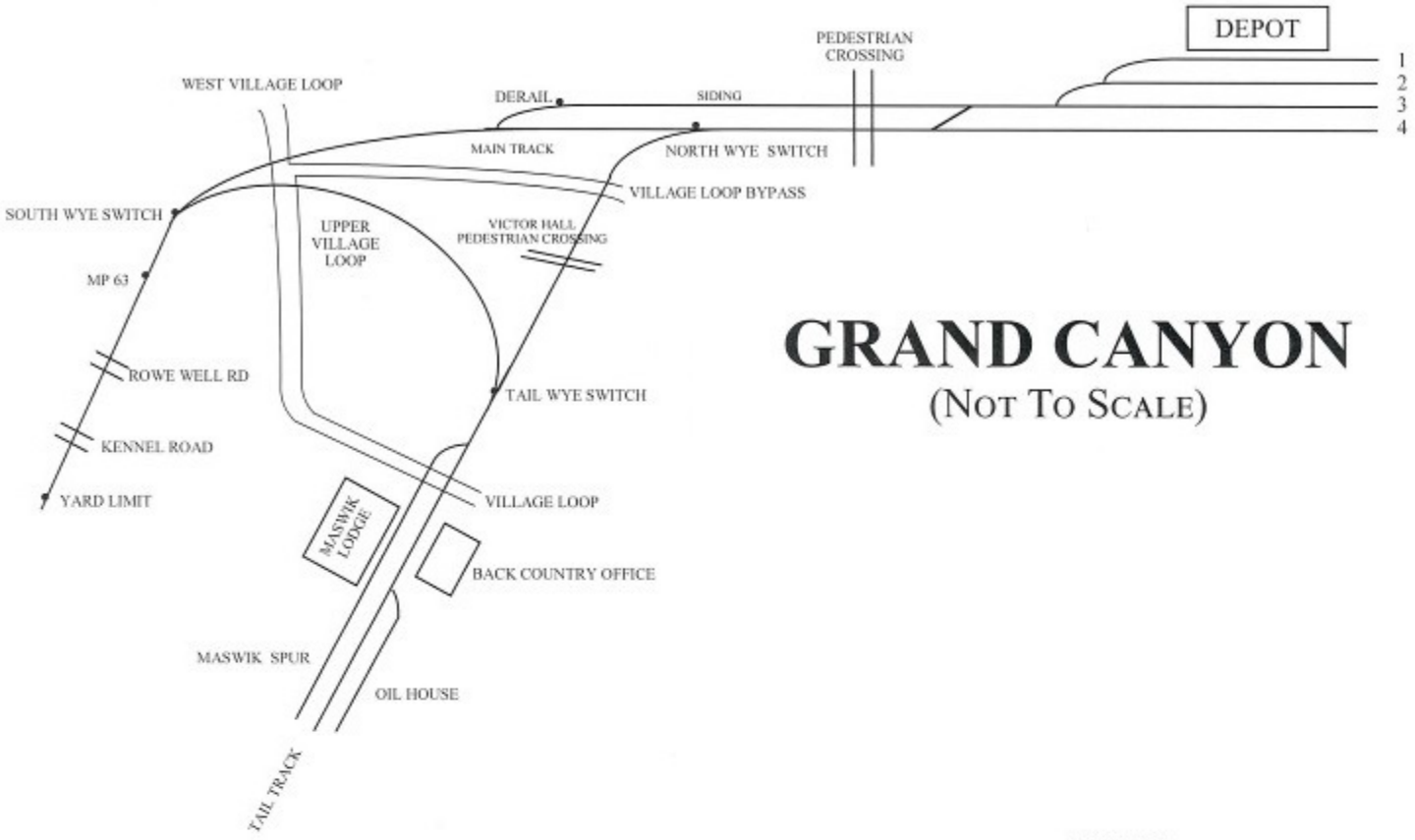
7.1 Switching Safely and Efficiently
The following locations will not clear a person Riding Outside Of Equipment when equipment is at the Clearance Point on adjacent track:
Mechanical Shop - Tank Car Track, and Tracks 1, 2, & 3. Close Clearances also exist at the servicing pits and interior structures.

7.6 Securing Cars or Engines
Cars and locomotives, or more than one car(s) and/or locomotive(s) coupled together left on Mechanical Shop Tracks 1, 2, 3 must have a sufficient number of wheels blocked to prevent movement, with a minimum of one (1) wheel blocked.

8.20 Derail Location and Position
Southward movements approaching the 7th Street Derail not exceeding 2 MPH may waive the 100 foot stop from the derail.

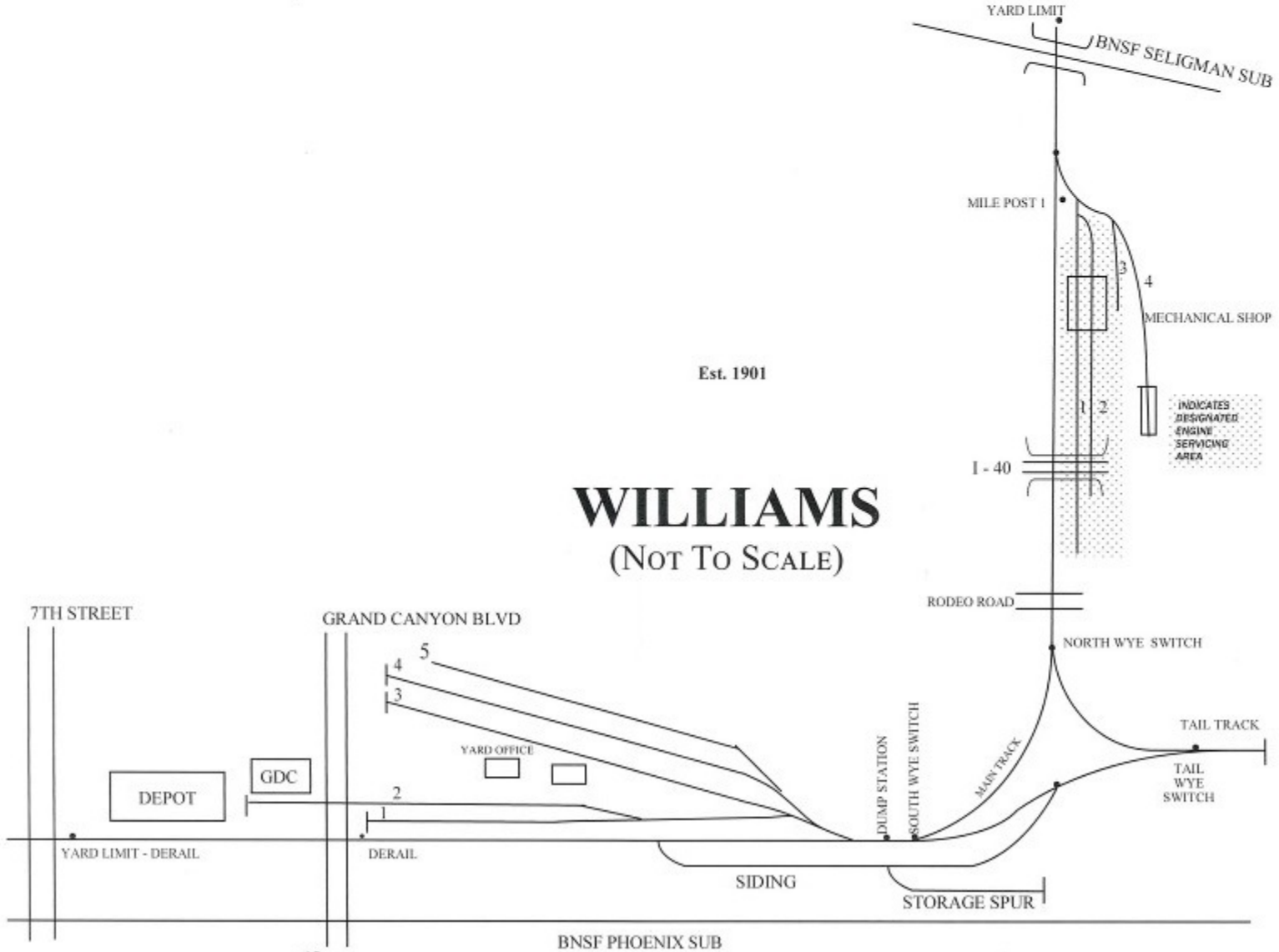
Physical Characteristics
Car Yard Track 2 is the section of track to the Permanent Folding Wheel Stops at the east side of GCB. The Private Car Track is the section of track between the Permanent Folding Wheel Stops to the end of track.

Track-No-Parking-Zone:
Track-No-Parking-Zone is designated on Mechanical Shop Track #3 south of the track pit to approximately the first vehicle parking space on the north end of parking lot. No rail equipment or rolling stock is permitted to be left standing within the no parking zone except during continuous switching operations or when equipment is being worked on, as to avoid blocking foot and vehicle access to the north entrance of the shop. It is encouraged to keep Track #3 clear of rolling stock to allow multiple unit fueling operations.



GRAND CANYON

(NOT TO SCALE)



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WILLIAMS

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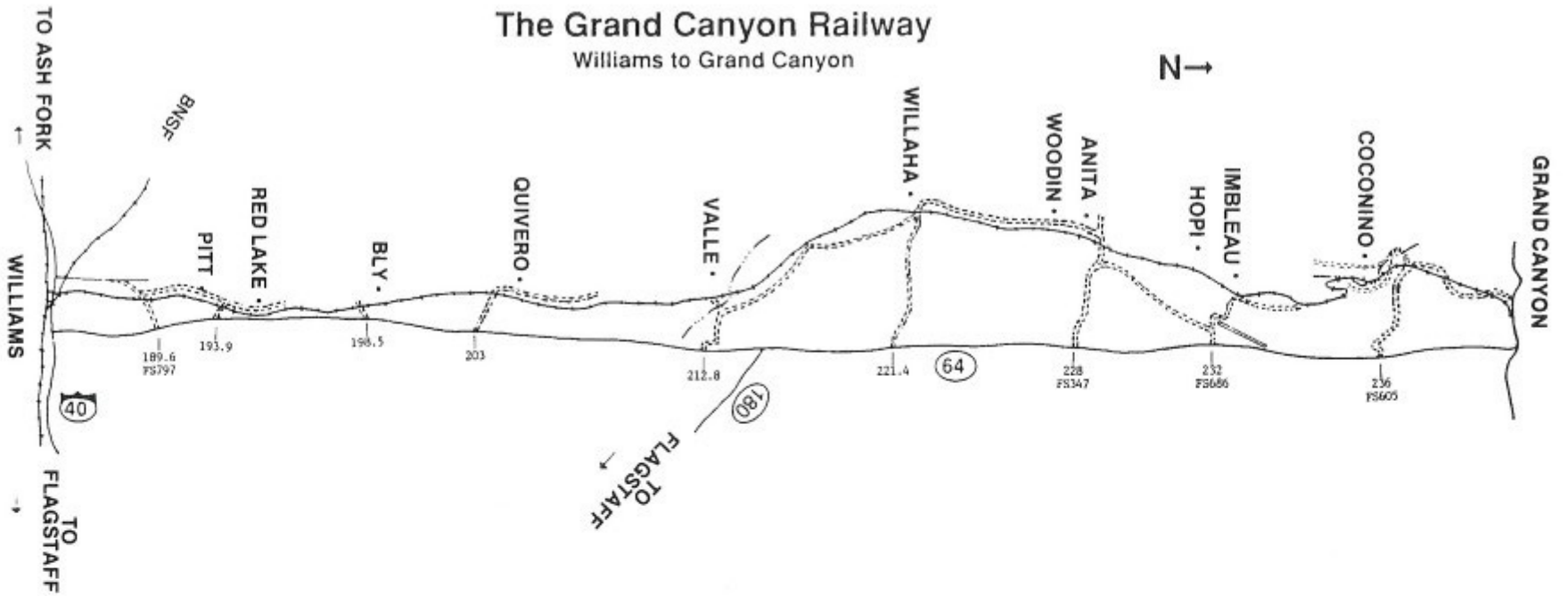

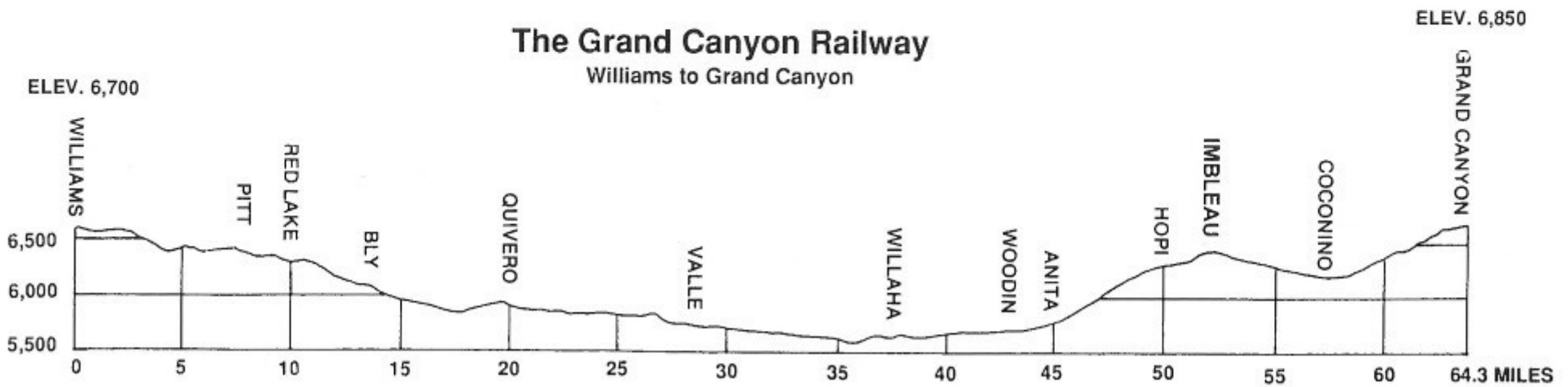

Condensed Profile

SPECIAL INSTRUCTIONS FOR STATIONS

GRAND CANYON

7.1 Switching Safely and Efficiently

The following tracks will not clear a person Riding Outside Of Equipment when equipment is on adjacent track:

Between Tracks 1 & 2 - entire length.
Between Tracks 3 & 4 - entire length.
GC Siding & Main Track - entire length of siding.

7.6 Securing Cars or Engines

Cars left unattached to a locomotive within the GC Yard (except the Tail Track, Maswik Spur, and Oil House Track) must have all hand brakes applied and sufficient wheels blocked. Unattended trains with running locomotive(s) attached must have a sufficient number of hand brakes applied to prevent movement and a roll test of the hand brakes performed prior to being left unattended. Unattended trains or equipment with all locomotives shut down must have a sufficient number of hand brakes applied, wheels blocked and a roll test performed prior to being left unattended. Unattended equipment may not be left on the Main Track south of the North Wye Switch. Display equipment must have permanent wheel stops and/or derails to prevent movement.

8.3 Main Track Switches

When unattended equipment is parked on GC Depot Tracks the North Wye Switch must be lined for North Wye Track movement and/or the GC Siding Derail must be in derailing position to prevent runaway equipment.

8.9 Movement Over Spring Switches

Tail Wye Spring Switch normal position is lined for North Wye Track. When unattended equipment or cars are left between the Tail Wye Switch and the east end of the Back Country Permit Office Platform, the Tail Wye Switch must be lined for North Wye Track movement.

8.9.1 Testing Spring Switch

Second sentence and items (1), (2), and (3) are not in effect on GCR. Movements making a trailing move over a spring switch may not reverse direction until the point has been visually observed and known to be properly positioned.

8.9.4 During Snow or Ice Storms

A trailing movement may be made if it is known that the switch is clear of any obstruction and will operate properly.

8.9.6 Approaching a Spring Switch in Non-Signaled Territory Not in effect on GCR.

8.12 Crossover Switches

The 4/3 Crossover switches may be left lined for normal movement or for movement through the crossover.

8.20 Derail Location and Position

The siding derail will be left in the derailing position except when placed in the non-derailing position to permit movement or when equipment is attended.

100.10 Initial Terminal and Road Air Brake Test

All trains not required to perform BNSF ABTH Rule 100.10 must comply with the following:

1. Conduct BNSF ABTH Rule 100.15 Application and Release Test,
2. Conduct a Leakage Test and ensure that brake pipe leakage does not exceed five (5) psi per minute,
3. Ensure brakes apply and release with the correct brake cylinder piston travel, brake rigging does not bind or foul, and brake equipment parts are properly secured.

Note: At least 85% of air brakes must be operative.
Note: Upon completion of test, a 10 psi set should be made on the brake pipe, to prevent movement, before boarding of passengers.

100.15 Application and Release Test

An Air Brake Application and Release Test must be performed on all trains before departing GC Yard.

103.7.6 Retaining Valves:

Passenger trains exceeding 500 tons total train weight departing GC without operable dynamic brakes must use retainers when available. When retainers are required, they will be used at the minimum rate of one for every 250 tons of total train weight, and all left on until the train passes at least MP 60.6 - Picnic Table Shelter.

Passenger trains exceeding 500 tons total train weight, departing GC with an operable dynamic brake, must use retainers if the combination of dynamic brake and a maximum of 18 psi brake pipe reduction does not maintain train

OVERSPEED COUPLINGS ARE DAMAGING

Here's what happens:

2-4 MPH ①②③④	Safe coupling
5 MPH ①②③④⑤	Damage begins
6 MPH ①②③④⑤⑥	2 times as damaging as 5 MPH
7 MPH ①②③④⑤⑥⑦	3 times as damaging as 5 MPH
8 MPH ①②③④⑤⑥⑦⑧	4 times as damaging as 5 MPH
9 MPH ①②③④⑤⑥⑦⑧⑨	5 times as damaging as 5 MPH

SPECIAL INSTRUCTIONS AND MODIFICATIONS TO AIR BRAKE RULES

BNSF Air Brake and Train Handling Rules NO 3, effective July 13, 2003, in effect on GCR.

100.4 Operative Brakes

When setting out cars for another train to pick up, the crew setting out the cars must advise the Dispatcher and leave a message with the cars that includes: the set-out time, any mechanical or air brake defects, and the signature of the employee leaving the message.

100.6 Standard Brake Pipe Pressures &
101.7 Standard Air Pressures

Feed or Regulating valve must be set at 110 psi.

100.10 Initial Terminal and Road Air Brake Test

B. Procedure for Initial Terminal and Road Air Brake Test and Inspection

(5). A passenger train release inspection must be performed with the train standing still.

C. Engineer Notification

Engineer notification of air brake tests may be in writing or by direct verbal communication.

100.13 Running Air Brake Test

Conduct a Running Air Brake Test on freight trains after a standing air brake test has been performed.

100.15 Application and Release Test

When conducting an Application and Release Test make a minimum 10 psi brake pipe reduction with the automatic brake valve. Conduct an Application and Release Test whenever a train brake pipe angle cock is closed except when one or more cars are removed from the rear of the train.

100.18 Piston Travel Limits

Truck mounted brake cylinder piston travel where the piston does not act directly on the brake beam is clearance to 6".

101.2 Locomotive Daily Inspection

Exceptions - 1st bullet - not in effect on GCR.

101.2 Locomotive Daily Inspection - Not Inspected Previous Calendar Day - Not in effect on GCR.

101.6 Locomotive Air Brake Test

The Engineer taking charge of a locomotive must know that the locomotive brakes are in operable condition either by ascertaining from the incoming Engineer or by conducting the prescribed tests. When taking control of a lite locomotive or consist, and it has not been ascertained the condition of the brakes from the prior Engineer, before moving under power, the following must be performed:

1. Hand brake applied and/or wheels blocked,
2. With independent brake cut-in and fully applied, observe brake cylinder gauge for pressure and brake cylinder piston travel for application,
3. Momentarily apply power to ensure brakes are cut-in and capable of holding locomotive (on steam locomotives limit steam cylinder pressure to fifty (50) psi),
4. Shut-off power before releasing independent brake and observe that brake cylinder piston travel releases,
5. Make a service application with the automatic brake and check that brake cylinder pressure develops, then release the automatic brake and check that brakes release,
6. Reapply independent brake and release hand brake or remove blocks before moving.

101.11 Operative Speed Indicator

Testing Speed Indicator Item 2 - Conduct the speed check in the 10 to 40 MPH range.

101.17 Locomotives Equipped for Multiple-Unit Operation & 101.18 Locomotives Not Equipped for MU Operation

Not in effect on GCR.

102.3 Unattended Locomotive(s)

Item 4. Change to: All GCR locomotives left unattended will have reversers removed from cab, doors locked (if applicable). After the completion of trip reversers will be placed in Car Yard Office Sign-in Desk for relieving crews; and/or engineers will maintain their issued reversers. ALCo or any unique reversers will remain stowed in the Car Yard Office Sign-in Desk.

Items 10 and 11 - Not in effect on GCR.

Live steam locomotives must be left in the charge of a competent employee and when left unattended, conditioned as follows:

1. Throttle locked,
2. Independent brake cut-in and fully applied,
3. Cylinder cocks and house valves left open,
4. Reverse lever centered and drivers chocked,
5. Proper level of water left in boiler, fire out and stack capped.

103.2.1 Dynamic Brake Limitations

(4). First sentence changed to read: 'When approaching and operating through turnouts or disturbed track areas, use the dynamic brake handle position to limit retarding force to 50 percent of maximum.'

103.3 Use of Automatic Brake

Whenever two or more GCR Harriman cars are being handled in a consist "GRADUATED BRAKING" is not permitted. The controlling Automatic Brake Cut-Out Valve shall be placed in "FREIGHT" position if so equipped.

A. Applying or Reapplying Automatic Brakes

Item 3 - Brake pipe reductions should be limited to 21 psi or less to control speed.

B. Delayed Departure &
C. Releasing Brakes

Not in effect on GCR.

103.4.2 Minimum Continuous Speed

Minimum continuous speed information will be shown in the Timetable Special Instructions or General Order(s).

103.7.4 Balance Braking on Grade

Item 2 - The 15 psi reduction is changed to 21 psi reduction.

103.7.6 Retaining Valves

Item 1 - Passenger trains not required to stop to set retainers.
Item 3 - Use Slow Direct position on GCR

Operating With Retainers

When retaining valves are set do not exceed 25 MPH.

SPECIAL INSTRUCTIONS AND MODIFICATIONS TO MAINTENANCE OF WAY RULES

BNSF Maintenance of Way Rules, dated December 2, 2009 in effect on GCR.

1.3.1 Rules, Regulations, and Instructions
Engineering Instructions - Not in use on GCR.

1.8 Appearance
MW employees fouling a track for the purpose of inspection, maintenance, repairs, or flagging must wear a safety vest and hard hat.

1.11.1 Napping Prohibited on GCR.

2.17 Radio Testing
Hy-rail vehicles must be equipped with a radio capable of providing communication with the Dispatcher and trains that is tested prior to fouling or setting on track.

5.4 Flags for Temporary Track Conditions
Distances are changed as follows:
'4 miles' - is changed to - '2 miles'
'2 miles' - is changed to - '1 mile'

5.4.1 Track Bulletins and Track Warrants
Restriction or work limits must be identified by fixed physical locations. Tenths of a mile may not be used unless it is a fixed physical location. All requests for TBs or TWs must be made to the Dispatcher as soon as possible verbally.

5.4.3 B. Restriction Is Not Specified in Writing
Not in use on GCR.

5.5.2 Speed Limit Signs
Advance Warning Signs Are displayed one (1) mile in advance of permanent speed restrictions.

6.3.1 Main Track Authorization
Overlapping Authority, Multiple Work Group - Documentation & Establish Working Limits
Not in use on GCR.

6.3.3 Visual Detection of Trains
A. Lone Workers
Statement of On-Track Safety Form not in use on GCR.

6.13.1 Movement Through Yard Limits
MW On-track equipment may occupy the Main Track within Yard Limits the same as trains or engines.

6.13.2 Maintenance in Yard Limits
Roadway Worker On-Track Safety Protection must be established by means of Inaccessible Track. Protection by TB Form B within Yard Limits is prohibited.

6.19 Flag Protection
Flagging distance on Main Track outside of Yard Limits is not less than one (1) mile.

When a Flagman reaches the prescribed distance, leave a lighted fusee and remain until recalled or a train or on-track equipment is stopped.

6.29.1 Inspecting Passing Trains
When unable to communicate with the train crew regarding defects observed on passing trains, notify the Dispatcher.

6.32.2 Automatic Crossing Devices
Notify the Dispatcher as soon as possible when Automatic Crossing protection is cut-out or cut-in. Notify the Trainmaster or Roadmaster of malfunctioning Automatic Crossing Devices when the Dispatcher is off-duty.

Whenever Automatic Crossing Protection is cut-out for any maintenance, testing or repairs prior to notifying the Dispatcher that the Automatic Crossing Protection is cut-in, a complete Track Circuit Shunt Test must be performed. The Dispatcher must record on the back of the Dispatcher's Record Of Movement Of Trains, in writing, the time the Track Circuit Shunt Test was completed and the name of the person conducting the test.

8.3 Main Track Switches
Job Briefing
A Job Briefing must be conducted prior to operation of a Main Track Switch, whenever a work plan is changed, and when the switch is restored to normal position at completion of the work.

Main Track Switch Operation Outside of Yard Limits When Dispatcher is Off-Duty
Switch Position Awareness Form (SPAF)

A. Whenever a Main Track Switch outside of Yard Limits is operated and the Dispatcher is off-duty, a SPAF must be initiated by the EIC as soon as practicable. Completed SPAFs must be turned in to the Dispatcher Office. When the Dispatcher is off-duty, place completed SPAFs in the 'Switch Lock Box'.

B. When limits of authority are released, the Dispatcher must be notified of the position of all switches included in the limits. When a SPAF has been initiated it must be completed prior to the limits of authority being released. SPAFs initiated by an EIC must indicate the employee operating the switch.

C. Track Warrant(s) left for the Dispatcher in the 'Switch Lock Box' releasing any limits of authority must either have a completed SPAF or a notation on the Track Warrant being released providing switch information.

14.3 Operating With Track Warrants
Item 1 - Not in use on GCR.
Item 2, 2nd & 3rd sentences not in effect on GCR.

14.5 Protecting Men or Equipment
Item 2 - Prohibited on GCR.

14.9 Copying Track Warrants
A. Transmitting Track Warrants
Item 4. Note: - Not in effect on GCR.

15.2 Protection by Track Bulletin Form B
The Foreman must have a copy of the TB Form B prior to fouling the track.

G. Verifying Track Bulletin Form B
Not in use on GCR.

NOTE: GCR Roadway Worker On-Track & Bridge Worker Safety Program dated July 2017, in effect.

BRIDGE AND ROAD CROSSING LOCATIONS

GPS IDENTIFICATION & ELEVATION

MP	Bridge or Crossing	Latitude	Longitude	Elevation	DOT No.
0.0	7th Street Derail	35.250208°	-112.193850°	6,800'	
WMS Depot		35.251213°	-112.191013°	6,800'	
0.05	**Grand Canyon Boulevard** (Public)	35.251795°	-112.189089°	6,800'	**025-302Y**
0.30	**Ballast Deck Bridge**				
0.55	**Rodeo Road** (Public)	35.258102°	-112.179262°	6,800'	**025-960W**
1		35.268907°	-112.179902°	6,800'	
1.1	**Open Deck Bridge**				
1.3 WMS YL					
2		35.281855°	-112.178364°	6,900'	
3		35.296377°	-112.181090°	6,800'	
3.3	**El Paso XING** (Private)	35.298793°	-112.181290°	6,800'	**025-961D**
4		35.310294°	-112.181593°	6,500'	
4.0	**Ballast Deck Bridge**				
4.4	**Ballast Deck Bridge**				
MP	**Bridge or Crossing**	Latitude	Longitude	Elevation	**DOT No.**
4.5	**Pronghorn Ranch XING** (Public)	35.316085°	-112.177102°	6,400'	**025-962K**
4.6	**Open Deck Bridge**				
5		35.323502°	-112.177082°	6,500'	
5.5	**Open Deck Bridge**				
6		35.337793°	-112.181439°	6,700'	
6.1	**Ballast Deck Bridge**				
6.5 Pitt		35.344024°	-112.177785°	6,600'	
7		35.350718°	-112.172998°	6,600'	
8		35.363716°	-112.166816°	6,500'	
8.4	**Espee Road** (Public)	35.367621°	-112.165456°	6,500'	**025-963S**
8.7	**Open Deck Bridge**				
9 Red Lake		35.377734°	-112.161949°	6,500'	
9.8	**Open Deck Bridge**				
10		35.391428°	-112.167830°	6,500'	
11		35.403333°	-112.176797°	6,400'	
11.1	**Open Deck Bridge**				
12		35.416565°	-112.174736°	6,300'	
13		35.431772°	-112.177343°	6,200'	
13.1	**Cowboy XING** (Private)	35.432506°	-112.177472°	6,200'	**025-965F**
13.2	**Open Deck Bridge**				
14		35.445894°	-112.177834°	6,000'	
14.1	**Open Deck Bridge**				
14.5	**Open Deck Bridge**				
14.8 Bly		35.457279°	-112.180281°	5,900'	
15		35.460174°	-112.181252°	5,900'	
15.4	**Ballast Deck Bridge**				
15.8	**Open Deck Bridge**				
16		35.474132°	-112.186311°	6,000'	
16.9	**Open Deck Bridge**				
16.9 North Pole					
		35.486661°	-112.189090°	5,900'	
17		35.487878°	-112.189978°	5,900'	
17.2	**Open Deck Bridge**				
18		35.500599°	-112.197566°	6,000'	
18.9	**Ballast Deck Bridge**				

MP	Bridge or Crossing	Latitude	Longitude	Elevation	DOT No.
19		35.514332°	-112.197587°	6,000'	
19.1	**Four Corners XING** (Private)	35.516570°	-112.195737°	6,000'	**025-967U**
19.6	**Quivero XING** (Private)	35.521112°	-112.192710°	6,000'	**025-968B**
20		35.527797°	-112.192656°	6,000'	
20.5 Quivero		35.534518°	-112.189884°	6,000'	
20.8	**Open Deck Bridge**				
21		35.541362°	-112.186432°	5,900'	
21.1	**Open Deck Bridge**				
21.3	**Open Deck Bridge**				
21.8	**Open Deck Bridge**				
22		35.555430°	-112.181110°	6,000'	
22.2	**Open Deck Bridge**				
22.2	**Willet's XING** (Private)	35.558449°	-112.179817°	6,000'	**025-969H**
22.4	**Open Deck Bridge**				
23		35.569499°	-112.179662°	6,000'	
23.3	**Open Deck Bridge**				
23.6	**Ballast Deck Bridge**				
24		35.583917°	-112.180890°	6,000'	
24.4	**Ballast Deck Bridge**				
25		35.597967°	-112.184398°	6,000'	
25.4	**Ballast Deck Bridge**				
25.9	**Ballast Deck Bridge**				
26		35.611365°	-112.189729°	5,900'	
27		35.625539°	-112.194000°	6,000'	
28		35639826°	-112.197197°	5,900'	
28.9	**Valle XING** (Private)	35.651830°	-112.199865°	5,800'	**025-970C**
29 Valle		35.653289°	-112.200190°	5,800'	
30		35.666294°	-112.208363°	5,700'	
31		35.676270°	-112.221467°	5,600'	
32		35.687533°	-112.232231°	5,900'	
33		35.699831°	-112.240937°	5,900'	
33.1	**Open Deck Bridge**				
33.8	**Open Deck Bridge**				
34		35.713078°	-112.247598°	5,800'	
34.9	**Open Deck Bridge**				
35		35.727431°	-112.251436°	5,700'	
35	**Open Deck Bridge**				
35.2	**Ballast Deck Bridge**				
35.5	**Ballast Deck Bridge**				
35.6	**Ballast Deck Bridge**				
36		35.738915°	-112.261157°	5,800'	
36.1	**Ballast Deck Bridge**				
37		35.751228°	-112.265739°	5,900'	
37.2	**Open Deck Bridge**				
37.7 Willaha		35.762293°	-112.264277°	5,900'	
37.8	**Willaha Road** (Private)	35.762805°	-112.264237°	5,900'	**025-971J**
38		35.765798°	-112.263849°	5,900'	
38.1	**Ballast Deck Bridge**				
38.8	**Open Deck Bridge**				
39		35.780183°	-112.261998°	5,600'	
39.7	**Ballast Deck Bridge**				
39.9	**Open Deck Bridge**				
40		35.794182°	-112.259602°	5,800'	
41		35.807675°	-112.254198°	5,800'	
42		35.822127°	-112.255989°	5,800'	
43		35.836364°	-112.255319°	5,800'	

MP	Bridge or Crossing	Latitude	Longitude	Elevation	DOT No.
43.8	**Open Deck Bridge**				
43.8	Woodin	35.847786°	-112.256027°	5,900'	
44		35.850980°	-112.255383°	5,900'	
44.1	**Open Deck Bridge**				
44.8	Anita	35.861135°	-112.249248°	5,900'	
44.9	**Anita XING** (Public) {FS 347}				**025-972R**
		35.860885°	-112.249426°	5,900'	
45		35.866166°	-112.247451°	6,000'	
46		35.877751°	-112.244984°	6,000'	
47		35.888874°	-112.233924°	6,300'	
48		35.901654°	-112.299065°	6,500'	
49		35.915356°	-112.222991°	6,500'	
50	Hopi	35.926033°	-112.212172°	6,500'	
51		35.934144°	-112.197521°	6,500'	
52	Imbleau	35.944796°	-112.185766°	6,800'	
52.3	**Apex XING** (Public) {FS 335}				**025-973X**
		35.948877°	-112.187763°	6,800'	
53		35.958370°	-112.184228°	6,600'	
53.9	**Ballast Deck Bridge**				
54		35.968580°	-112.173522°	6,400'	
54.1	**Ballast Deck Bridge**				
54.3	**Open Deck Bridge**				
55		35.981423°	-112.177648°	6,400'	
55.1	**Ballast Deck Bridge**				
55.2	**Ballast Deck Bridge**				
56		35.979539°	-112.183569°	6,300'	
56.6	**Ballast Deck Bridge**				
56.8	**Ballast Deck Bridge**				
56.9	**Ballast Deck Bridge**				
57		35.990118°	-112.192872°	6,300'	
57.1	**Ballast Deck Bridge**				
57.2	Coconino	35.992265°	-112.195577°	6,300'	
57.5	**Ballast Deck Bridge**				
58		35.999651°	-112.201424°	6,300'	
58.9	**Coconino XING** (Private) {FS 328}				**025-974E**
		36.009583°	-112.192173°	6,400'	
59		36.011020°	-112.190770°	6,400'	
59.3	**Highland Mary XING** (Public) {FS 335}				**025-975L**
		36.015858°	-112.186396°	6,500'	
60		36.021728°	-112.179058°	6,600'	
60.9	**Lower Rowe Well XING** (Public)				**025-976T**
		36.033775°	-112.170938°	6,700'	
61	**Ballast Deck Bridge**				
61		36.034196°	-112.170171°	6,700'	
61.6	**Center Rowe Well XING** (Public)				**025-977A**
		36.038855°	-112.162994°	6,700'	
61.7	**Ballast Deck Bridge**				
62		36.042743°	-112.157966°	6,700'	
62.7	GC YL	36.053381°	-112.148382°	6,900'	
62.7	**Kennel Road** (Private)				**025-978G**
		36.053817°	-112.147942°	6,700'	
62.9	**Rowe Well Road** (Private)				**025-979N**
		36.053834°	-112.147931°	7,000'	
63		36.054283°	-112.147616°	7,000'	
63.2	**Ballast Deck Bridge**				
63.3	**Lower Village Loop XING** (Public)				**025-980H**
		36.056558°	-112.144476°	7,000'	
63.5	**Pedestrian XING** (Public)				**025-983D**
		36.056116°	-112.140439°	7,000'	
63.7	GC Depot	36.056707°	-112.135932°	7,000'	

MP	Bridge or Crossing	Latitude	Longitude	Elevation	DOT No.
SLY	**Upper Village Loop XING** (Public)				**926-922B**
		36.056152°	-112.144448°	7,000'	
TTY	**Maswik Road** (Public)				**025-981P**
		36.053783°	-112.143485°	7,000'	
NLY	**Victor Hall Pedestrian Crossing**				**967-061N**
NLY	**Village Loop Bypass XING** (Private)				**025-982W**
		36.056106°	-112.141959°	7,000'	
NLY	**Ballast Deck Bridge**				

Williams Depot.....233 North Grand Canyon Blvd., Williams

GCR Hotel.....235 North Grand Canyon Blvd., Williams

Fred Harvey Restuarant..233 North Grand Canyon Blvd., Williams

Car Yard Office.....206 Franklin Ave., Williams

Mechanical Shop/Warehouse...1001 Roundhouse Rd., Williams

Regional Office.....1201 West Rt. 66, Flagstaff

TRACK LENGTHS & DISTANCES

Location	Track Identification	Length
	CLP - clearance point	
Williams	MT 7th ST to GCB XING circuits	1,460'
	Private Car Track (Wheel stops to CI)	320'
	Car Yard Track 1	1,225'
	Car Yard Track 2	537'
	Car Yard Track 3	1,280'
	Car Yard Track 4	1,345'
	Car Yard Track 5	1,340'
	Siding	1,500'
	Storage Spur	850'
	South Wye Track	1,530'
	Tail Wye Track	1,620'
	North Wye Track	930'
	Main TRK between SWS & NWS	1,430'
	Mechanical Shop TRK 1 (South paint to end)	2,700'
	Mechanical Shop TRK 1 (North derail to CLP)	245'
	Mechanical Shop TRK 2 (South derail to end)	1,630
	Mechanical Shop TRK 2 (North derail to CLP)	245'
	Mechanical Shop TRK 3	300'
	Mechanical Shop TRK 4	1,100'
	Mechanical Shop TRK 4 shed	275'
Red Lake	Siding	1,500'
Quivero	Spur	910'
Willaha	Siding	1,590'
Imbleau	Siding	2,010'
Grand Canyon	Main Track NWS to end TRK 4	1,610'
	Maswik Spur (Maswik XING to end)	1,170'
	Oil House Track	210'
	Siding (derail to crosswalk)	900'
	Siding (derail to crossover switch)	970'
	Tail Wye TRK (tail switch to end)	1,590'
	Tail Wye TRK (Maswik XING to end)	1,240'
	Track 1	520'
	Track 2	590'
	Track 3	1,200'
	Track 4	1,280'
	Track 4 (CLP to wood)	920'

LOCOMOTIVE RATINGS—ESTIMATED TRAILING TONS

	29	4960	GP7	FA4	FB4	F40
From - To						
WMS - RL	660	705	595	738	738	821
RL -QV	880	980	785	987	987	1,098
QV -VL	1,530	1,760	1,340	1,698	1,698	1,833
VL - WL	685	745	620	773	773	858
WL - AN	1,185	1,345	1,045	1,318	1,318	1,477
AN - IM	555	580	505	628	628	694
IM - GC	705	765	635	794	794	858
GC - IM	795	875	710	890	890	991
IM - VL	1,185,	1,345	1,045	1,318	1,318	1,477
VL - QV	795	875	710	890	890	991
QV - WMS	555	580	505	628	628	694

MINIMUM CONTINUOUS SPEED

Tonnage ratings are for trailing tons behind locomotive. Tonnage ratings on diesel locomotives are for a minimum continuous speed of 8 MPH.

LOCOMOTIVE STATISTICS

Number	29	4960	All	All	All	All	
Model	SC3	O1a	GP7	FA4	FB4	F40H	
Eng Wt	113 t	158 t	---	---	---	---	
Ten Wt	72 t	152 t	---	---	---	---	
Total Wt	185 t	310 t	124 t	123 t	121 t	130 t	
Length	71'	94'	57'	54'	53'	56'	
TE lbs	48,000	58,000	41,000	52,500	52,500	57,000	

MISCELLANEOUS STATISTICS

Type	Flat	Hopper	Tank	Caboose		Power	Café
Mty Wt	29 t	21 t	30 t	28 t		46 t	62 t
Cap Wt	50 t	50 t	67 t	1 t		n/a	n/a
Total Wt	79 t	71 t	97 t	29 t		46 t	62 t
Length	57'	37'	49'	43'		42'	85'

PASSENGER CAR STATISTICS

Name	Harriman	Budd	Budd (generator)	Anasazi (generator)	Arizona (generator)	Colorado River, Yavapai, Bucky O'Neil, Bright Angel	Coconino, Kokopelli, Grand View, Desert View
Type	Coach	Coach	Coach	Main	Main	Main	Dome
Generator	**2089**		**301**	**2095**	**7608**	**4012**	
	2128		**311**				
	2153		**801**				
Mty Wt	63 t	44 t	54 t	62 t	66 t	62 t	72 t
Cap Wt	5 t	5 t	5 t	3 t	3 t	3 t	4 t
Total Wt	68 t	49 t	59 t	65 t	69 t	65 t	76 t
Length	81'	85'	85'	85'	85'	85'	85'

Name	Fred Harvey Mary Colter	Santa Fe	Chief	Max Biegert	California	Utah	Kansas
Type	Lux Dome	Lux	Lux	Lux	Slpr dome	Lux	Lux
Mty Wt	87 t	59 t	46 t	82 t	79t	66t	70t
Cap Wt	3 t	3 t	5 t	3 t	3t	3t	3t
Generator			255	2093	78	318	165
Length	85'	85'	85'	85'	85'	85'	85'

TANK CAR CAPACITY & WEIGHT				
Car NO 857, 874, 907, 912, 929 & 932				
FEET	GALLONS	TONS	CAR	TOTAL
1	1,100	5 t	30 t	35 t
2	3,120	13 t	30 t	43 t
3	5,430	23 t	30 t	53 t
4	8,000	33 t	30 t	63 t
5	10,570	44 t	30 t	74 t
6	12,880	54 t	30 t	84 t
7	14,900	62 t	30 t	92 t
8	16,000	67 t	30 t	97 t

PUBLIC RELATIONS SECTION

Trainmen, through direct personal contact with passengers, constantly have the opportunity to demonstrate they are the best railroaders in the business. Some good common practices are:

A. Assuring the safety, security and comfort of passengers.

B. Giving correct information in answer to questions and tactfully correcting errors or misinformation which may have been made by someone else.

C. Giving extra attention as necessary to those in need of special accommodation, to children by assisting them on & off trains, and inquiring as to their comfort while enroute.

D. Maintaining orderly behavior onboard.

E. Avoiding arguments with passengers even when they are discourteous to you.

F. Watch your appearance, everyone else does. Close attention to neat appearance and uniform indicates pride in your job.

G. Inspect coaches and restrooms for cleanliness. Correct or report any infractions in cleanliness, safety, and security.

BE POLITE.....
DON'T EXCITE !!

Passenger announcements & prompt notifications:

These instructions are in addition to the current Conductor and PSA routine announcements.

During any unannounced stops of the passenger trains, the passengers must be promptly notified of the situation via PA systems by the Conductor or Brakeman. This task may be given to the PSA Supervisor using instructions from the Conductor or Brakeman. If the PA system is unavailable, these announcements must be made in each car.
Remember to keep the announcements simple and don't use technical or potentially frightening terms.

Late passengers boarding train:
In the event a person(s) attempts to board a moving train upon departure; the Dispatcher, Conductor & Brakemen must be observant to both sides and rear of trains for an immediate stop. Prompt notification to all is required to correct the unsafe situation, and get the person(s) boarded.

GRADE CROSSING INCIDENTS

The following information is designed to serve as Post Grade Crossing Incident Guidelines. It is designed to provide the utmost in safety to you and your crew. After the incident has occurred and the train is stopped:

A. Ensure the safety of crewmembers, accident victims, passengers, and the public.

B. Complete the requirements of GCOR 6.23 - Emergency Stop or Severe Slack Action.

C. Contact the Dispatcher or any other available radio contact or supervisor and advise:
   1. Exact location.
   2. What emergency services are needed. Include alternate route for emergency vehicle(s) if the train is blocking road crossing.

D. Assess the damage to vehicle and train to determine if there is any danger to the crew or public.

E. Assign a crewmember to monitor a radio to provide information for emergency assistance.

F. If it is safe, render assistance to accident victims. It is important not to move victim(s) unless a life-threatening situation exists.

G. Turn off the vehicle's ignition and inform the investigating officer you did so. Otherwise, do not disturb the accident scene. Do not move the train unless it presents a safety problem, such as emergency vehicles needing to get to the accident through a blocked crossing, etc.

H. Only give information to:
   1. The investigating officer.
   2. Authorized company officials.

   Cooperate with the investigating officer. Answer the officer's questions and provide as much information as you can. Note the badge number and name of the investigating officer at the scene. Witness with the officer that the headlight is on and that the whistle and bell on lead locomotive are in proper working order. Also note that the crossing warning devices are functioning.

I. Assign a crewmember to verify the accuracy of the Wheel Report. Save all Wheel Reports, Track Warrants, Track Bulletins and other pertinent documents for the proper GCR official(s).

J. Ascertain that no part of the train is derailed and that it will be safe to proceed once released by the investigating officer.

K. Personal counseling will be available to any crewmember who might experience post-accident trauma.